

**DERWENT-ACC-NO:** 1977-H5777Y

**DERWENT-WEEK:** 197737

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**TITLE:** **Multiple nozzle for producing radial air flow displacement - has honeycomb arrangement of conical nozzles in curved surface**

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**PATENT-FAMILY:**

<b>PUB-NO</b>	<b>PUB-DATE</b>	<b>LANGUAGE</b>	<b>PAGES</b>
<b>MAIN-IPC</b>			
<b>DE 2608792 A</b>	<b>September 8, 1977</b>	<b>N/A</b>	<b>000</b>
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**INT-CL (IPC): F24F013/06**

**ABSTRACTED-PUB-NO: DE 2608792A**

**BASIC-ABSTRACT:**

**Multiple nozzle for producing a radial displacement air flow, for germ-free rooms, comprises a cylindrical air inlet pipe section (1) leading into the circular sectional plane of a cup-shaped member. The curved**

**surface (3) of the  
latter consists of a honeycomb -like arrangement of conical  
nozzles of which  
the cone angle is less than 15 deg., with a fabric baffle layer (2)  
on the  
input side and a wire mesh protective layer (4) on the output  
side.**

**The device may be installed in an operating zone of a germ-free  
room with its  
radial displacement flow directed towards surrounding sources  
of interference,  
or in the bracket of an operating theatre lamp of which the  
supporting pipe  
conducts inflowing air.**

**TITLE-TERMS: MULTIPLE NOZZLE PRODUCE RADIAL AIR FLOW  
DISPLACEMENT HONEYCOMB  
ARRANGE CONICAL NOZZLE CURVE SURFACE**

**DERWENT-CLASS: Q74**



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Multiple nozzle to the Erzeugung of radial displacement current.

The invention concerns a device for air inlet at a limited pure space work area.

By pure air displacement currents becomes in particular dust and/or with industriellen manufacturing processes and with aseptischen operations. germ-free Arbeitsbedingungen in Arbeits-bzw. the operation zone production.

It is well-known, for the fulfilment of these requirements, work and/or. To ventilate operation area with pure air in such a manner that outgoing from a space side, either horizontal or vertical or also diagonal, Kurbulenzarme displacement currents are produced, which flow through the entire space cross section and derive floating particles from the rubbing realm as well as by jobs and humans scattered particles for that, for the supply air opening in relation to arranged discharge port to lead to be supposed. Further an arrangement is well-known, with which a pure air flow is operation-field-steered by a centric turbulent, diagonally arranged jet on.

This well-known Systeme requires very disciplined behavior in the pure area person employed, of air galangt frequently contaminated by breakdown bodies such as lights, technical devices, humans and thermal lift for its functioning into the pure range. The energy expenditure entspricht the sizes of passage areas.

Der Erfindung liegt??Aufgabe zugrunde???unwählbaren Einfluss der Störquellen auszuschalten und??Energieund Investitionsaufwand zu reduzieren?

This task is solved invention-moderately by the fact that the pure air inlet between pure zone and interference source is arranged and pure air is led radially against the interference sources.

Ine kalottenförmige multiple nozzle leads radially arranged pure air across the pure zone. By the honeycombed injector bushing pre-aged pilot layer and the multiplicity of the radially arranged, under an angle than 15° extending nozzles, a kegelförmige propagation of the supply air non-inductive in the core and a reduction of the exhaust velocity become more weiccher smaller after the relationship  $v_2 = w_1 \cdot r_1/r_2$  obtains. This flow attitude, otherwise only at suction openings, effectuation already admits, at small distance Zugfreit.

<RTI ID=3.1> it</RTI> Iilit <RTI ID=3.2>< /RTI> Invention obtained advantage exists in particular in the fact that restrictions which the work personnel with <RTI ID=3.3>< /RTI> /RTI imposes upon <RTI ID=3.4> to well-known< systems>, impairments of the insurance of operation RTI <ID=3.5 had escaped> switched off< /RTI> and the investment and energy expenditure decrease.

Pesonders is integrated favourably an arrangement over operation tables, with that the described multiple nozzle into the console one surgery lamp and the console so <RTI ID=3.6> dimensioned</RTI> it is that the basic Flanschrohr <RTI ID=3.7>< of /RTI> <RTI ID=3.8> pure air feed</RTI> to at the lower, <RTI ID=3.9> front side</RTI> <RTI ID=3.10> de</RTI> serves the console attached multiple nozzle, since so the swivelling range of the light and flow

▲ top disturbances are not impaired are avoided by light bodies.

In the design remark examples of the invention are represented.

<RTI ID=3.11> Jig. </RTI> 1 zeigt einen Teilschnitt <RTI ID=3.12> durch</RTI> a multiple nozzle.

1 Zuluftstutzen 2 fabric rope layer 3 Wabenförmiger Injector bushing 4 wire mesh protective layer Fig.2 veranschaulicht in a cross section by one area the arrangement of the air inlet device RTI <ID=3.13 at> /RTI, < which can be ventilated> Pylon of a OI light as well as the radialarranged displacement current.

L e e r His Excellency i t e



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Patent claims:

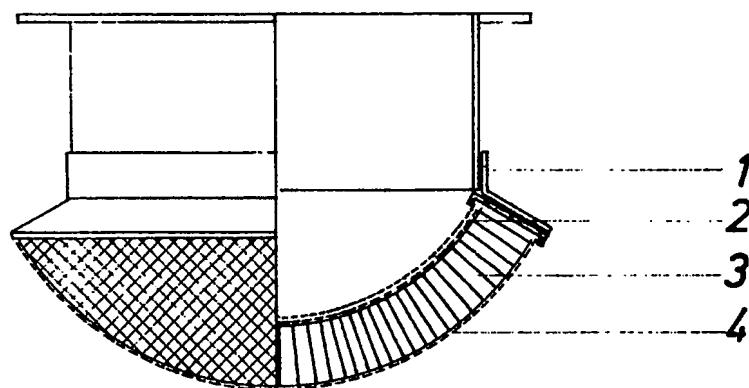
1. Multiple nozzle for the production of a radial arranged dragee current in particular for so-called. pure areas, by the fact characterized that a cylindrischer Zulufstutzen leads into the circular plane of section of a Kalotte, whose curved surface from a multiplicity of wabenförmig arranged conical nozzles their opening angle is smaller than 15 and a flow against-laterally arranged fabric rope layer and a divert-laterally arranged wire mesh protective layer exists.
2. Device according to requirement 1, by the fact characterized that it is in such a manner arranged at pure area a Arbeitszonne that its radial displacement current against those is arranged surrounding interference sources.
3. Device according to requirement 1, by the fact characterized that it is integrated into the console of a surgery lamp, whose pylon serves the supply air guidance.

▲ top

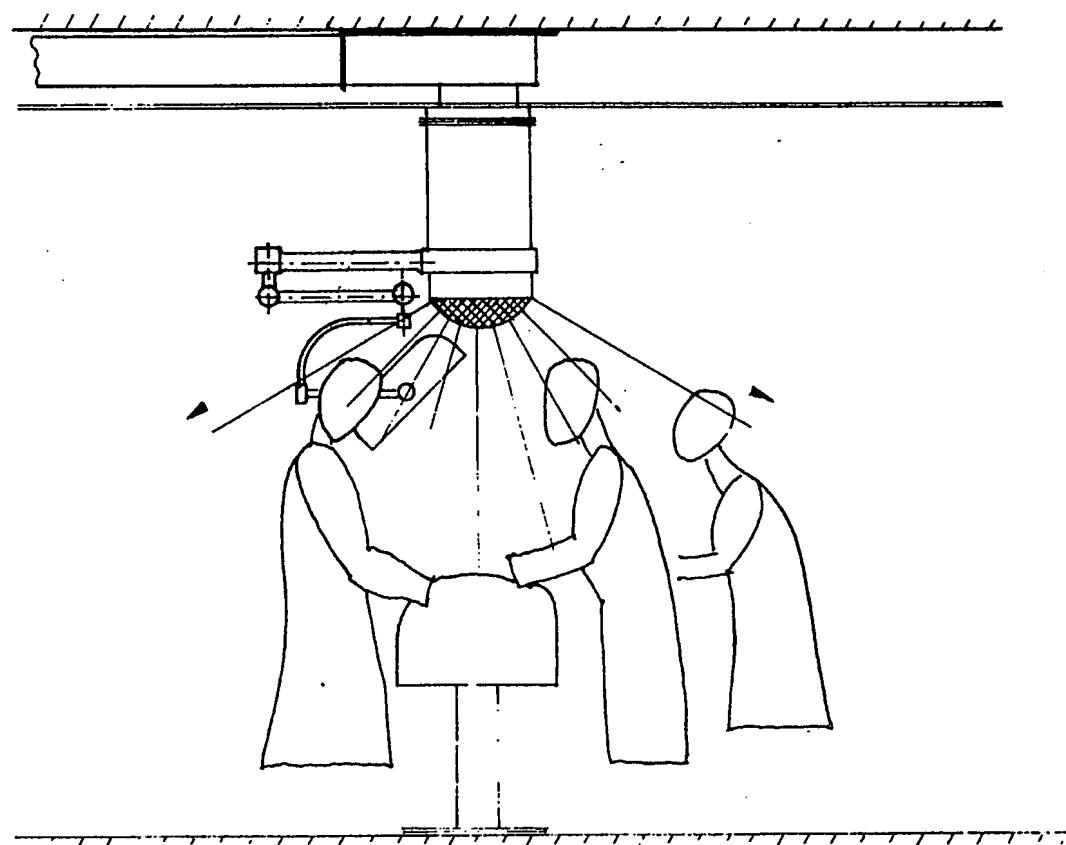
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Anmeldetag: 3. März 1976  
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*Fig. 1*



*Fig. 2*

709836/0280